



Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

Writing out the determinant we get $(3\sqrt{2} \tan 70^\circ - 2)y = (\sqrt{6} \tan 70^\circ + 2)z$.

$$\therefore \theta = \angle HZN = \tan^{-1} \left\{ \frac{3\sqrt{2} \tan 70^\circ - 2}{\sqrt{6} \tan 70^\circ + 2} \right\} = 47^\circ 53' 6''.$$

\therefore N. $47^\circ 53' 6''$ E. is the direction of the wind.

Also solved by A. H. BELL, and the PROPOSER.

PROBLEMS.

16. Yale Senior Prize Problem.---Contributed by H. A. NEWTON, LL. D., Professor of Mathematics, Yale College, New Haven, Connecticut.

The axes of two right cylinders whose bases are circles of 4 and 6 inches radius respectively, intersect at right angles; compute to four decimal places the lengths of the curves of intersection of the two surfaces.

Proposed by SAMUEL HART WRIGHT, M. D., M. A., Ph. D., Penn Yan, Yates county, New York.

A bright star passed my meridian at 7 P. M. The Chronometer soon after ran down and stopped, but I set it again when the same star had a true altitude of $30^\circ = \alpha$. What time was it then, my latitude being $42^\circ 30' \text{ N.} = \lambda$, and the star's Declination $60^\circ \text{ N.} = \delta$?

Solutions to these problems should be received on or before November 1st.

QUERIES AND INFORMATION.

Conducted by J. M. COLAW, Monterey, Va. All contributions to this department should be sent to him.

6. A reply to Professor WHITAKER'S Comment, by H. W. DRAUGHON.

Professor Whitaker's explanation of the difficulty in L. B's solution seems to me illogical. L. B's answer is correct, and does prove if properly substituted.

Professor Whitaker does not discriminate between the sign indicating operation, placed before an expression, and the sign of the *value* of that expression found by solution. For instance, let us take the equation under discussion, $x-4 = +\sqrt{x-4} + 4 \dots (1)$.

Squaring, we readily find, $\sqrt{x-4} = -1$. The $+$ sign before $\sqrt{x-4}$ in (1), merely indicates that the value of $\sqrt{x-4}$, be it positive or negative, is to be added to 4. If Professor Whitaker insists that $\sqrt{x-4}$ cannot have a negative value, he must deny that x can have a negative value in the following equation: $x^2 + 2x = 3 \dots (2)$. To illustrate, let the value of x^2 be required; we readily find $x^2 = 9$ and $x^2 = 1$.

From the first result, we obtain $x=3$, which does not satisfy (2), but